

## Montana Board of Oil and Gas Conservation Environmental Assessment

**Operator:** Slawson Exploration Company, Inc.  
**Well Name/Number:** Drifer 1-10H  
**Location:** SE SE Section 10 T23N R52E  
**County:** Richland, MT; Field (or Wildcat) Wildcat

### Air Quality

(possible concerns)

Long drilling time: No, 25-35 days drilling time.

Unusually deep drilling (high horsepower rig): Triple derrick rig 900 HP, to drill a single lateral horizontal Bakken Formation well, 13,887' MD/9,309' TVD.

Possible H2S gas production: Slight chance H2S from Mississippian Formations.

In/near Class I air quality area: No Class I air quality area.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:

☒ Air quality permit (AQB review)

☐ Gas plants/pipelines available for sour gas

☐ Special equipment/procedures requirements

☐ Other: \_\_\_\_\_

Comments: Triple derrick drilling rig to drill a single lateral horizontal Bakken Formation well, 13,887' MD/9,309' TVD. If there is an existing pipeline for gas gathering in the area, associated gas can be gathered or if no gathering system nearby associated gas can be flared under Board Rule 36.22.1220.

### Water Quality

(possible concerns)

Salt/oil based mud: Yes intermediate string casing hole will be drilled with oil based invert drilling fluids. Oil based invert drilling fluids for horizontal leg. Surface casing hole will be drilled with freshwater and freshwater mud.

High water table: No high water table expected.

Surface drainage leads to live water: No, closest drainage is an unnamed ephemeral tributary drainage to East Redwater Creek, east half of location is built over this drainage.

Water well contamination: No, closest water well is about 1 mile to the northeast from this location.

Depth of this water well is 260'. Surface hole will be drilled with freshwater and surface casing will be cemented to surface from 1550'.

Porous/permeable soils: No tight silty sand clay soils.

Class I stream drainage: No, Class I stream drainages.

Mitigation:

☒ Lined reserve pit

☒ Adequate surface casing

☒ Berms/dykes, re-routed drainage

☒ Closed mud system

☒ Off-site disposal of solids/**liquids (in approved facility)**

☒ Other: Requires DEQ General Permit for Storm Water Discharge Associated with

Construction Activity, under ARM 17.30.1102(28).

Comments: 1550' surface casing to be set to protect freshwater zones and to cover the Fox Hills aquifer. Adequate surface casing and operational BOP equipment will prevent any problems. (BOP's 5,000psig annular, pipe and blind rams) rule 36.22.1014.

## Soils/Vegetation/Land Use

(possible concerns)

Steam crossings: None anticipated.

High erosion potential: Yes possible high erosion potential with moderate cut and fill requirements.

Location will require moderate cut, up to 22.2' and moderate fill, up to 17.3', required.

Loss of soil productivity: None, location to be restored after drilling well, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, large well site 450'X405'

Damage to improvements: Slight, surface use is cultivated and grassland.

Conflict with existing land use/values: Slight

Mitigation

☐ Avoid improvements (topographic tolerance)

☐ Exception location requested

☒ Stockpile topsoil

☐ Stream Crossing Permit (other agency review)

☒ Reclaim unused part of wellsite if productive

☐ Special construction methods to enhance reclamation

☐ Other \_\_\_\_\_

Comments: Access will be over existing county road, #310. An access road will be built into location, about 6205' will be upgraded for heavy trucks and constructed into this location from the county road.

Cuttings will be buried in the lined cuttings pit. Oil based invert drilling fluids will be recycled.

Completion fluids will be hauled to a Class II disposal. Pit will be allowed to dry before being backfilled. No concerns.

## Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Closest residences are 1.25 miles to the southeast from this location.

Possibility of H2S: Slight chance of H2S from Mississippian Formations.

Size of rig/length of drilling time: Triple drilling rig 25 to 35 days drilling time.

Mitigation:

☒ Proper BOP equipment

☐ Topographic sound barriers

☐ H2S contingency and/or evacuation plan

☐ Special equipment/procedures requirements

☐ Other: \_\_\_\_\_

Comments: Adequate surface casing cemented to surface with working BOP stack should mitigate any problems. (BOP's 5,000psig annular, pipe and blind rams) rule 36.22.1014.

Distance from rig to residence sufficient to mitigate any noise problems.

## Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): None identified.

Proximity to recreation sites: None identified.

Creation of new access to wildlife habitat: None

Conflict with game range/refuge management: None

Threatened or endangered Species: Threatened or endangered species listed in Richland county by USFW Service are Pallid Sturgeon, Piping Plover, Interior Least Tern and Whooping Crane. Candidate species are the Greater Sage Grouse and the Sprague's Pipit. NH tracker website lists zero (0) species of concern.

Mitigation:

☐ Avoidance (topographic tolerance/exception)

☐ Other agency review (DFWP, federal agencies, DSL)

☐ Screening/fencing of pits, drillsite

☐ Other: \_\_\_\_\_

Comments: Private cultivated lands. There maybe species of concern that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to what he would like done, if a species of concern are discovered at this location. The Board of Oil & Gas has no jurisdiction over private surface lands.

### Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites None identified.

Mitigation

☐ avoidance (topographic tolerance, location exception)

☒ other agency review (SHPO, DSL, federal agencies)

☐ Other: \_\_\_\_\_

Comments: Private cultivated lands. There maybe possible historical/cultural/paleontological sites that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to his desires to preserve these sites or not, if they are found during construction of the wellsite. The Board of Oil & Gas has no jurisdiction over private surface lands.

### Social/Economic

(possible concerns)

☐ Substantial effect on tax base

☐ Create demand for new governmental services

☐ Population increase or relocation

Comments: Wildcat well test. No concerns.

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### Remarks or Special Concerns for this site

A single lateral Bakken Formation single lateral horizontal well, 13,887' MD/9,309' TVD.

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### Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected. Some short term impacts will occur.

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I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): /s/Steven Sasaki

(title:) Chief Field Inspector

Date: July 28, 2012

Other Persons Contacted:

\_\_\_\_\_  
(Name and Agency)

Montana Bureau of Mines and Geology, Groundwater Information Center website.

(subject discussed)

Water wells in Richland County

(date)

July 28, 2012

US Fish and Wildlife, Region 6 website

(Name and Agency)

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA  
COUNTIES, Richland County

(subject discussed)

July 28, 2012

(date)

Montana Natural Heritage Program Website (FWP)

(Name and Agency)

Heritage State Rank= S1, S2, S3, T23N R52E

(subject discussed)

July 28, 2012

(date)

If location was inspected before permit approval:

Inspection date: \_\_\_\_\_

Inspector: \_\_\_\_\_

Others present during inspection: \_\_\_\_\_